

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



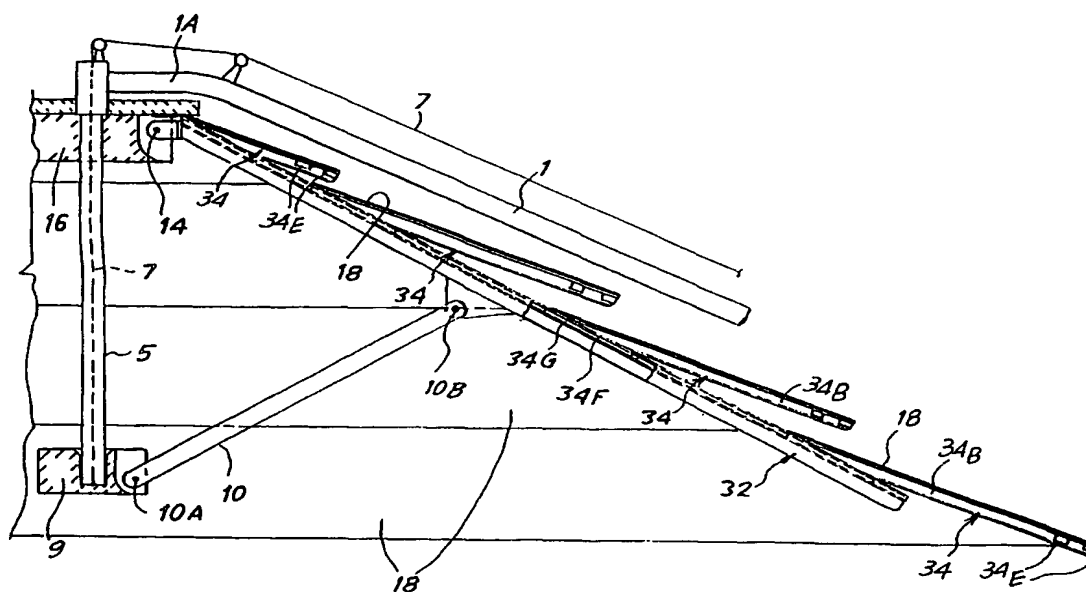
(43) International Publication Date  
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number  
**WO 03/103437 A1**

- (51) International Patent Classification<sup>7</sup>: **A45B 25/22**
- (21) International Application Number: PCT/IT03/00344
- (22) International Filing Date: 3 June 2003 (03.06.2003)
- (25) Filing Language: Italian
- (26) Publication Language: English
- (30) Priority Data:  
FI2002A000098 7 June 2002 (07.06.2002) IT
- (71) Applicant (for all designated States except US): **GARDENART S.R.L.** [IT/IT]; Via Torcicoda 111/1, I-Firenze (IT).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **ALOI, Vincenzo** [IT/IT]; Via del Calandrino 23, Fiesole (IT).
- (74) Agents: **MANNUCCI, Michele** et al.; UFF. Tecn. Ing. A. Mannucci S.r.l., Via della Scala 4, I-50123 Firenze (IT).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
- with international search report
  - before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) **Title:** IMPROVED SLOTTED UMBRELLA STRUCTURE FOR ATTENUATING THE FORCE OF THE WIND WHEN THE UMBRELLA IS OPEN



(57) **Abstract:** The structure of the umbrella comprises improved ribs for engaging with the strip portions of the cover; each rib consists of a metal structural shape (32) and a plurality of saw-tooth components (34) engaged with said structural shape and capable of fixing the strip portions (18) of the cover thereto.